

## Activity 5: Mind reading with maths

### A: Finding your birthday

Tell your partner you are going to guess their birthday. Ask your partner to follow the instructions below using a calculator. Make sure they press the equals key after each step.

1. Enter the number of their birthday. For example if they were born on 15 June, they would enter the number 15.
2. Multiply that by 5.
3. Add 6.
4. Multiply that total by 4.
5. Add 9.
6. Multiply this total by 5.
7. Ask them to add to that total the number of the month in which they were born. If they were born in January add 1, February add 2, and so on up to December, when they would add 12.
- 8a. Ask them for the total and in your head or on a piece of paper, subtract 165. The total is the day and month of their birthday. For example, 1411 would mean they were born on 14 November.

Or

- 8b. Take the calculator from them and subtract 165 from the total. Show them the answer, which is the day and month of their birthday, for example anyone born on 15 June will show the numbers 1506!

### B: Guess the numbers

Tell your partner you are going to read their mind!

1. Ask your partner to think of three consecutive numbers between 0 and 20. For example, 1, 2, 3; 7, 8, 9; or 18, 19, 20.
2. Ask them not to tell you what they are, but just to think of them.
3. Ask your partner to add up the numbers they have thought of. For example 1, 2, 3 would total 6; 7, 8, 9 would total 24; and 18, 19 and 20 would total 57.
4. They should tell you the total of the numbers.

In your head or on a piece of paper divide this total by 3. The answer will be the middle number of their three numbers. For example, if they chose 1, 2 and 3, the total will be 6. Divide 6 by 3 and the answer is 2. This is the middle number of their sequence 1, 2, 3.